The Redbox Range of Products

Redbox are a range of audio and video interfaces designed for use in critical broadcast applications where the product needs to be powered 24 hours a day, 365 days a year. Manufactured to the highest standards in our UK offices, utilisation of the finest components and critical quality control techniques ensure that your Redboxes work every time, for years to come. They are "fit and forget" products - you can set them up, fit them in your installation and then forget about them.

Features

- All are equipped with IEC mains lead and instruction manual.
- In-house design and manufacture ensures high quality control standards.
- All units are 115V 60Hz or 230V 50Hz switchable, or universal and all have a front panel LED power indicator.
- Manufactured within ISO9000 standards and guaranteed CE compliant.
- Housed in eye catching red anodised aluminium cases.

RB-ADDA Combined A/D and D/A Converter

The **RB-ADDA A/D and D/A converter** is a 1U rack-mount which produces an AES/EBU or S/PDIF level digital audio output from a balanced XLR or unbalanced phono stereo audio input. It also produces a stereo balanced XLR or unbalanced phono output from an incoming AES/EBU or S/PDIF digital input signal.

Uses:

- To connect an analogue line level audio signal into a digital mixer.
- To connect a digital recorder to an analogue mixer in both directions.
- To convert an analogue amplifier signal to an S/PDIF or AES/EBU input on a mixer.

24 bit 96 kHz RK3 FR1

RB-ADDA2 Combined A/D & D/A Converter

The **RB-ADDA2 A/D and D/A converter** is a 1U rack-mount which produces an AES/EBU, S/PDIF or TOSlink optical level digital audio output from a balanced XLR or unbalanced phono stereo audio input. It also produces a stereo balanced XLR or unbalanced phono output from an incoming AES/EBU, S/PDIF or TOSlink optical digital input signal.

Features:

- Front panel control.
- Operation up to 192kHz.
- AES/EBU & wordclock synchronising inputs, so that the A/D and D/A sections can operate independently.

24 BIT 192 kHz

RK3

RB-SC1 Sample Rate Converter

Ideal for the transfer of digital audio between different digital equipment, the **RB-SC1 sample rate converter** standardises the sample rate of a digital audio signal to one of 32kHz, 44.1kHz, 48kHz or 96kHz, or to a synchronising input. Both audio inputs and outputs have push-button switches to select either AES/EBU or S/PDIF. The synchronising input can be selected from one of AES/EBU, S/PDIF or TTL word clock.

Features:

- Superb conversion quality.
- AES/EBU and S/PDIF inputs and outputs.
- AES/EBU,S/PDIF and TTL wordclock synchronizing inputs.
- Sample rates up to 24bit 96kHz.

24 96 RK1 RK2

RB-SC2 Dual Sample Rate Converter

The **RB-SC2 sample rate converter** is a 1U rack-mount which produces AES/EBU, S/PDIF and TOSlink optical level digital audio outputs from a balanced AES/EBU, S/PDIF and TOSlink optical level digital audio inputs. The sample rate of the outputs can be set by an internal clock or from various external synchroniser sources.

Features:

- Supports sample frequencies up to 176.4kHz & 192kHz.
- Output sample rate set by internal clock or external sync.
- Has 2 independent sample rate converter circuits & can function as a full bi-directional sample rate converter.

24 BIT 192 kHz

RK3

RB-DAC1 Digital to Analogue Converter

Using 24 bit, 96kHz capable devices, the **RB-DAC1 D/A Converter** is a 1U rack-mount which produces a stereo balanced XLR or unbalanced phono output from an incoming AES/EBU or S/PDIF digital input signal. There is also a headphone output with volume control for monitoring purposes.

Features:

- Superb quality and pristine audio clarity with 24 bit, 96kHz operation.
- AES/EBU and S/PDIF digital inputs.
- Both balanced XLR and unbalanced phono outputs.
- Front panel headphone output with volume control.

24 bit 96 kHz

RK2

FR2

RB-SP1 Digital Splitter and Combiner

The **RB-SP1 digital splitter & combiner** is used to interface stereo and mono AES/EBU & S/PDIF signals to digital mixing desks by splitting the left and right signals of a stereo XLR to two separate XLR's, and vice versa by combining them.

Features:

- Can be used for interfacing stereo and mono signals to digital mixing desks, e.g. can split a digital stereo signal into 2 digital mono signals.
- Can handle sample rates up to 96kHz and sample sizes of 16, 20 and 24 bit.

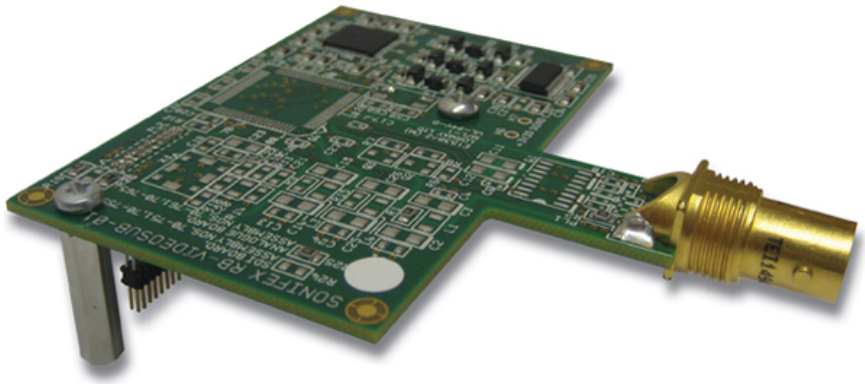
24 bit 96 kHz RK2

RB-SYA Analogue Video Sync Board for RB-SC2

The **Analogue** video sync board will accept a composite signal of NTSC (525), PAL (625) & SECAM (625) signals covered by SMPTE-170-M (NTSC) and ITU-R BT.470-6 (PAL & SECAM.

Uses:

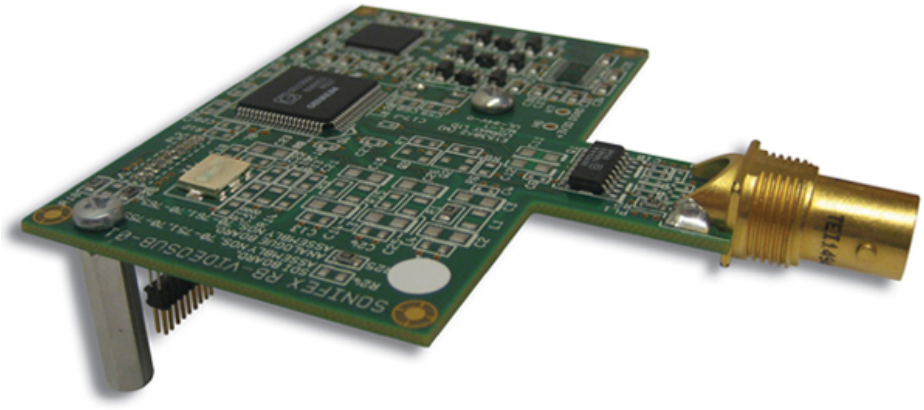
- Used to synchronise the outputs of the **RB-SC2** to a 48kHz sample rate.
- Used to synchronise the outputs of the **RB-TGHD(B & X)**.



RB-SYD Digital Video Sync Board for RB-SC2

The **Digital** video sync board will accept 270Mbps SD-SDI and HD-SDI signals covered by SMPTE-259-M-C (SD) and SMPTE-292M (HD).

- Used to synchronise the outputs of the **RB-SC2** to a 48kHz sample rate.
- Used to synchronise the outputs of the **RB-TGHD(B & X)**.

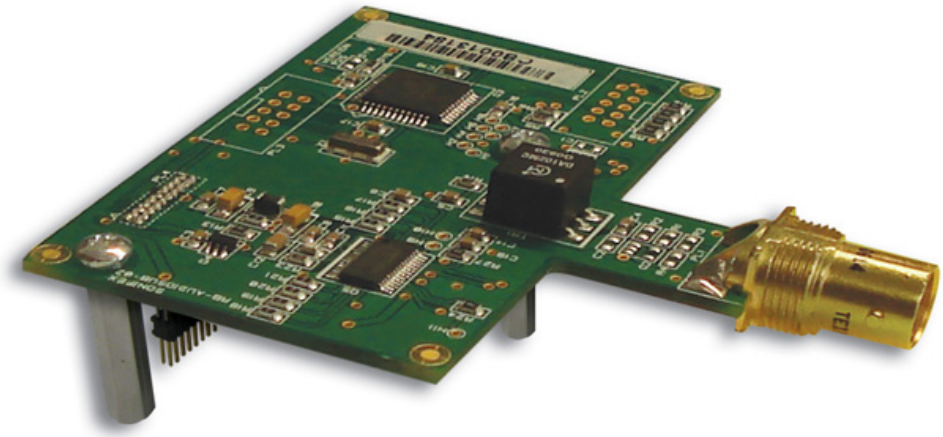


RB-SYE Sync Board

The **AES/EBU** sync board will accept a digital audio input signal with a sample frequency between 32kHz and 192 kHz. When using the RB-SYE sync board, the Channel Status information that is encoded in the input data signal is copied to all digital output channels.

Uses:

- Used to synchronise the outputs of the **RB-TGHD(B & X)**.

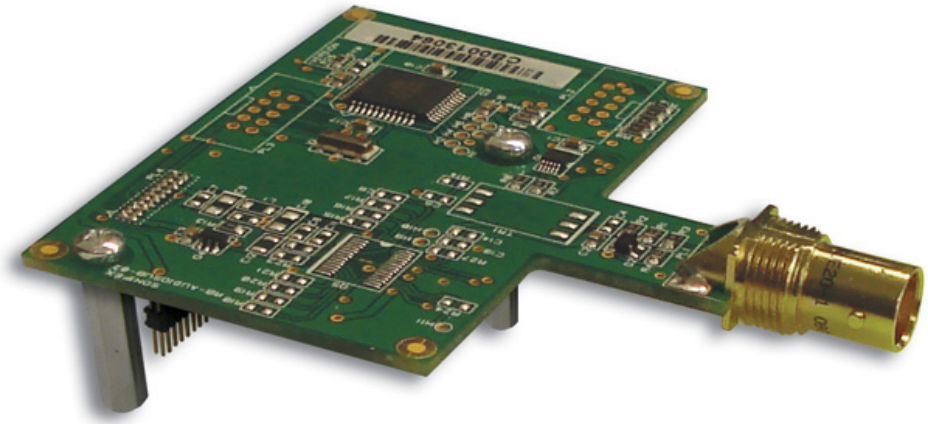


RB-SYW Wordclock Sync Board for RB-TGHD

The **Wordclock** sync board will accept a distributed clock running at the desired sample frequency between 32 kHz and 192 kHz. The signal can be differential or single ended TTL level

Uses:

- Used to synchronise the outputs of the **RB-TGHD(B & X)**.



RB-DS2 Stereo Delay Synchroniser & Time-Zone Delay

The **RB-DS2** is a stereo audio delay synchroniser used for resynchronising audio to video following delay processes such as standards conversion, transmission delay, logo insertion, video aspect ratio conversion and network delays. It can be used for fixed installations to correct a permanent audio delay, or on an intermittent basis to provide occasional correction, for example for live links. Acting as an A/D or D/A, the sonic quality of the RB-DS2 is superb with silent switching. A CF card can provide delays of many hours for time-zone delay applications.

- Has both balanced analogue and AES/EBU digital audio I/O.
- Up to 10.5 secs of delay (96kHz).
- Selectable in samples, fields, frames, msec, metres.
- CF can provide multiple-hour delay.

RB-PD2 Stereo Profanity Delay

The **RB-PD2** is a stereo audio profanity delay used for live broadcast programs to prevent unwanted or obscene material from being transmitted. It features an automatic audio stretch algorithm that allows between 2 and 55 (*) seconds of delay to be built up live whilst "on air", whilst maintaining the correct pitch. The delay can also be acquired whilst playing a pre-selected audio file on a Compact Flash™ memory card. When the program is complete, the audio stretch algorithm seamlessly reduces the delay to zero.

- Up to 55 seconds of delay available in user defined dump segments.
- Automatic delay creation ramp-up and amp-down algorithms.
- Flashcard slot for dump playback of jingles.
- Full remote and serial control.

RK3

RB-DD4 4 Channel Digital Audio Delay

The **RB-DD4 4 channel digital audio delay** allows you to delay 4 mono channels of audio independently or together. Each channel delay is user selectable from multiples of common video frame rates, or a user defined value set via the serial interface. The unit is perfect for synchronizing audio to video which has been delayed by processing latency.

Features:

- AES/EBU, S/PDIF and TOSLink I/O.
- Programmable for different delay durations, levels and switching functions so that you can program the unit for your specific application.
- Front panel & serial control.

RB-SD1 Silence Detect Unit

The **RB-SD1 silence detection unit** is a 1U rack-mount device used to monitor an unattended stereo studio feed and in the event of the signal going "quiet" after a given period the unit will switch through an alternative stereo audio signal. This signal could be a recorded message (e.g. "normal service will be resumed", etc), a feed from a CD player or minidisc machine, or an alternative recorded programme. Controls are provided to start external equipment and to provide remote status indication.

Features:

- Configurable silence duration & detection level.
- Automatic or manual resetting.
- GPI output to start local playback equipment.
- Over 500 units sold worldwide.

RK3

RB-DSD1 Digital Silence Detection Unit

The **RB-DSD1 digital silence detection unit** works in a similar way to the Sonifex RB-SD1 analogue silence detection unit, but has AES/EBU, S/PDIF and TOSlink inputs and outputs instead of analogue inputs and output respectively. Designed to switch from one input to another in the event of loss of audio, the unit is ideal at transmitter sites, or after the master output of a studio, to switch in another audio source, or simultaneous broadcast, should a master source fail.

Features:

- AES/EBU, S/PDIF & TOSlink inputs & outputs.
- Configurable silence duration & detection level.
- Automatic or manual resetting.
- GPI output to start local playback equipment.

24 BIT 192 kHz RK3

RB-UL1 Single Stereo Unbalanced to Balanced Converter

The **RB-UL1** is a single stereo unit for interfacing domestic or semi-professional unbalanced equipment, such as a CD player, to professional balanced line levels.

The two RCA unbalanced inputs have an impedance of 10kΩ and are routed to two balanced XLR-3 outputs with an output impedance of <50Ω.

The output gain can be individually adjusted for left and right channels by using pre-set potentiometers accessible through the rear panel.

Features:

- Converts 2 x RCA unbalanced inputs to 2 x XLR balanced outputs.
- Rack-mount available.

RK1

RK2

RB-UL2 Dual Stereo Unbalanced to Balanced Converter

The **RB-UL2** is a dual stereo unit for interfacing domestic or semi-professional unbalanced equipment to professional balanced line levels. All connections are on the rear panel. Four RCA unbalanced inputs have an impedance of 10kΩ and are routed to four balanced XLR-3 outputs with an output impedance of <50Ω.
The output gain can be individually adjusted for left and right channels by using pre-set potentiometers accessible through the rear panel, allowing you to feed both balanced and unbalanced equipment.

Features:

- Converts 4 x RCA unbalanced inputs to 4 x XLR balanced outputs.
- Can be surface mounted and optionally front or rear rack-mounted.

RK1

RK2

RB-UL4 Quad Stereo Unbalanced to Balanced Converter

The **RB-UL4** is a 1U rack-mount quad stereo unit for interfacing domestic or semi-professional unbalanced equipment to professional balanced line levels.

All connections are on the rear panel. The eight RCA unbalanced inputs have an impedance of 10kΩ and are routed to eight balanced XLR-3 outputs with an output impedance of <50Ω.The output gain can be individually adjusted for left and right channels by using pre-set potentiometers accessible through the rear panel.

Features:

- Converts 8 x RCA unbalanced inputs to 8 x XLR balanced outputs.
- 1U rack unit can be surface mounted.
- Ideal for balancing domestic outputs for surround sound applications.

RK3
FR1

RB-LU4 Quad Stereo Balanced to Unbalanced Converter

The **RB-LU4** is a 1U rack-mount quad stereo unit for interfacing professional balanced line levels to domestic or semi-pro unbalanced equipment, e.g. for connecting a pro satellite receiver to a consumer hi-fi system. All connections are on the rear panel. The eight balanced XLR-3 inputs have an impedance of 20kΩ and are routed to eight unbalanced RCA outputs with an output impedance of <50Ω.

Features:

- Converts 8 x XLR balanced inputs to 8 x RCA unbalanced outputs.
- 1U rack unit can be surface mounted.

RK3
FR1

RB-BL2 Unbalanced to Balanced Bi-Directional Converter

The **RB-BL2** is a bi-directional stereo unit for interfacing domestic or semi-pro unbalanced equipment to professional balanced line levels, and vice-versa.

The two XLR-3 electronically balanced inputs have an impedance of 20kΩ bridging and are routed to two unbalanced RCA (phono) outputs with an output impedance of <50Ω.

- For interfacing domestic, semi-pro, unbalanced equipment to professional balanced lines.
- Adjustable output gain for left & right channels.
- IEC mains inlet - no wall warts.

RK1
RK2

RB-BL4 Dual Stereo Bi-Directional Matching Converter

The **RB-BL4** is a dual bi-directional stereo unit for interfacing domestic or semi-pro unbalanced equipment to professional balanced line levels, and vice versa.

The four XLR-3 electronically balanced inputs have an impedance of 20kΩ bridging and are routed to four unbalanced RCA (phono) outputs with an output impedance of <50Ω.

- Operates like 2 x RB-BL2 in a 1U rack.
- For interfacing domestic, semi-pro, unbalanced equipment to professional balanced lines.
- Adjustable output gain for left & right channels.
- IEC mains inlet - no wall warts.

RK3

FR1

RB-PA2 Dual Stereo RIAA Phono Amplifier

The **RB-PA2** is a dual stereo RIAA equalised phono amplifier. This record player preamp amplifies the small signal from your pick up cartridge (either moving magnet or high output moving coil magnetic) and provides the necessary RIAA equalisation required for vinyl records, to match it to a line input of your mixer, or amplifier. It uses a clean RIAA response making it ideal for use with broadcast turntables and DJ decks and where vinyl records are being archived to CD for high quality transfers, or for converting albums to mp3.

Features:

- Dual stereo record player amplifier.
- Clean RIAA response.
- Superbly transparent audio path.
- Adjustable output gain.

RK1
RK2

RB-LI2 Stereo Line Isolation Unit

The **RB-LI2** stereo line isolation unit is used to isolate audio signals from inter-area ground hum loops, which could be caused by equipment being powered by different mains power supplies, or different phases on the same supply. The input and output are connected together through a transformer, which has internal jumpers allowing the outputs to be balanced about ground.

Features:

- There is also a loop-through output, so that the **RB-LI2** can be inserted into a line, forming a transformer balanced distribution point.
- The isolated outputs can be individually adjusted using pre-set potentiometers, accessible through the rear panel.

RK1

RK2

RB-PLI6 6 Way Mono Passive Line Isolation Unit

The **RB-PLI6** passive line isolation unit is used to isolate audio signals from inter-area ground hum loops, which could be caused by equipment being powered by different mains power supplies or phases on the same supply. The input and output are connected together through a transformer, and the unit has internal jumpers allowing the inputs and/or outputs to be balanced about ground. The unit requires no mains power for operation.

Uses:

- This unit is useful where audio is required to be driven over a relatively long length of cable.
- By isolating the signal using transformers, ground loop currents which can be present in non-isolated signals, are eradicated completely.

RB-DA6 6 Way Stereo Distribution Amplifier

The **RB-DA6** is a 1U rack-mount high performance 6 way stereo distribution amplifier for splitting a source into a number of different outputs.

The RB-DA6 has 1 stereo input and 6 stereo outputs. It can also be configured so that 1 mono input can be distributed to 12 outputs by use of a switch which is recessed on the front panel to prevent it being accidentally knocked.

Features:

- 2 balanced mono XLR inputs.
- 12 balanced mono XLR outputs.
- Dual input gain controls on preset pots.
- Run 1 in/12 out mono, or 1 in/6 out stereo.

RB-DA6G 6 Way Stereo Distribution Amplifier With Output Gain Control

The **RB-DA6G** is a 1U rack-mount high performance 6 way stereo distribution amplifier for splitting a source into a number of different outputs. It is identical to the RB-DA6 with the addition of individual output gain adjustment, instead of global stereo gain adjustment.

Features:

- 2 balanced mono XLR inputs.
- 12 balanced mono XLR outputs.
- Dual input gain controls on preset pots.
- Run 1 in/12 out mono, or 1 in/6 out stereo.
- 12 x output gain controls.

RK3

RB-DA4x5 4 Input, 4 x 5 Output Distribution Amplifier/Mixer

The **RB-DA4x5** is a 1U rack-mount combined distribution amplifier and mixer. It has 4 mono analogue audio inputs on female XLR and 4 groups of 5 outputs on 15 way D-type connectors. Each output group has a five way front-panel DIP switch assigned to it which is used to select the input(s) to send to the output group. This enables each of the four inputs, or a 1kHz 0dBu tone, to be mixed to the output group.

- 4 input, 20 output distribution amp.
- Audio presence LEDs for inputs & outputs.
- Balanced I/O, can be wired unbalanced.
- Can output a 1kHz test-tone to check transmission lines.

RK3

RB-DDA6A AES/EBU Digital Distribution Amplifier

The **RB-DDA6A** digital distribution amplifier is used for distributing digital audio data in AES/EBU format, repeating both the audio data and the status information of the input whilst re-normalising to standard digital audio levels.It has a single XLR-3 female AES/EBU audio input which is distributed to 6 XLR-3 male AES/EBU outputs.

Features:

- 1 x AES/EBU input, 6 buffered AES/EBU outputs.
- Sample rates from 30kHz–100kHz, 16-24 bits.

24 96 RK1 RK2

RB-DDA6S 6 Way Stereo S/PDIF Digital Distribution Amplifier

The **RB-DDA6S** digital distribution amplifier is similar to the RB-DDA6A except that it is used for distributing digital audio data in S/PDIF format. It has a single S/PDIF audio input which is distributed to 6 x S/PDIF audio outputs at the same level and condition as the input signal. It can accept input sample rates in the range of 30kHz - 100kHz, and bit rates of 16, 20 and 24 bit.

Features:

- 1 x S/PDIF input, 6 buffered S/PDIF outputs.
- Sample rates from 30kHz–100kHz, 16-24 bits.

RB-DDA6W 6 Way Word Clock Distribution Amplifier

The **RB-DDA6W** word clock distribution amplifier distributes a TTL word clock BNC input signal to 6 TTL word clock BNC outputs re-conditioned. It is used to distribute reference clocks for digital audio systems.

Features:

- 1 x BNC word clock input, 6 buffered BNC word clock outputs.

RK1
RK2

RB-HD1 Stereo Headphone Amplifier

The **RB-HD1** is a 1U rack-mount stereo headphone amplifier for driving up to two pairs of professional stereo headphones from a single stereo or mono input. One headphone socket is on the front panel with one on the rear. The main stereo input uses electronically balanced XLR-3 connectors on the rear panel, which can be wired un-balanced. The output volume for the headphones can be controlled either by a pot situated on the front panel or a VCA signal supplied externally via the remote connector.

- A mono input can be mixed into the main headphone feed, for mixing in talkback to the headphones.
- Both the headphone volume and the mono mix input can be controlled remotely.

RK2
FR2

RB-HD2 Dual Stereo Headphone Amplifier

The **RB-HD2** is a high performance 2-way stereo headphone distribution amplifier for driving up to 2 pairs of professional stereo headphones from a single stereo or mono input. A switch on the rear panel enables the distribution of a mono signal to all four outputs (i.e. both earpieces of a pair of stereo headphones) via the left channel input. The stereo/mono switch is located on the rear panel to prevent accidental knocking.

- The XLR-3 inputs are electronically balanced and can be wired unbalanced.
- There are two pre-set controls on the rear panel that adjust the level of the master input signal to the outputs.

RK2
FR3

RB-HD6 6 Way Headphone Distribution Amplifier

The **RB-HD6** headphone distribution amplifier is a 1U rack-mount which distributes stereo audio to up to 6 different sets of headphones, or can be used as 6 independent headphone amplifiers, each with their own input and volume control. A typical application might be to provide common headphone feeds for guests in a radio studio, with a separately derived feed, perhaps including talk-back, for the presenter.

- Master inputs on XLR.
- Master and individual volume controls.
- Rear panel sockets can be selected as either outputs or inputs via 'jumpers'.
- Rear panel unbalanced inputs allow the unit to act as 6 separate headphone amplifiers.

RK3

RB-DHD6 Digital 6-Way Stereo Headphone Distribution Amplifier

The **RB-DHD6** digital 6 way headphone distribution amplifier is a 1U rack-mount which receives a digital input signal, as either AES/EBU or S/PDIF and converts it to 6 individually buffered, jack-plug, headphone outputs, each with their own volume control. Useful for connection to digital mixing desks, digital routers and matrices, the RB-DHD6 connects directly to an AES/EBU or S/PDIF output to provide the highest quality audio directly to the headphones.

- Input connectors consist of a single balanced XLR-3 for the AES/EBU input and a single unbalanced phono connector for the S/PDIF input.
- Rear panel input selection, either AES/EBU or S/PDIF.
- De-emphasis selection, for the output.

24 bit 96 kHz

RK3

RB-SS10 10 Way Stereo Analogue Source Selector/Mixer

The **RB-SS10 10 way stereo analogue source selector/mixer** is a 1U rack-mount unit that produces a stereo analogue audio output from 10 selectable stereo analogue sources. There are 10 illuminated front panel push-buttons, which select and indicate the current channel selection. The selection and indication is available through a remote connector on the rear panel and remote controls related to each input can also be routed.

- 10 stereo inputs, 1 stereo output, all balanced and can be wired unbalanced.
- Left & right gain adjustment for each input.
- Acts as a mixer or a source selector.
- Can route input remotes also.

RK3

RB-DSS10 10 Way Stereo Digital Source Selector

The **RB-DSS10 digital source selector** is a 1U rack-mount which produces an AES/EBU and S/PDIF level digital audio output from 10 selectable AES/EBU or S/PDIF digital input signals. There are 10 illuminated front panel push-buttons, which select and indicate the current channel selection. The selection and indication is also available through a remote connector on the rear panel. To stop accidental front panel selection there is a remote input to inhibit the front panel buttons.

Features:

- 10 x AES/EBU and 10 x S/PDIF stereo inputs to
- 1 stereo AES/EBU or S/PDIF output.
- Switches remote inputs/outputs with audio.

24 96 RK3

RB-PMX4 10 Input, 4 Output Analogue Preset Mixer

The **RB-PMX4** is a high performance 10 mono input to 4 mono output pre-set mixer. Each of the four outputs has a 10 way DIP switch associated with it to select which of the 10 inputs are routed to it. So, by altering the DIP switches, any of the input sources can be mixed to any of the outputs. The DIP switches are enclosed by a screw-on cover on the front panel so that the settings can not be accidentally changed, for secure applications.

- 10 x balanced XLR inputs,
  4 x balanced buffered XLR outputs.
- Mix any input to any output.
- 10 x recessed individual input gain controls.
- Cover panel to protect settings.

RK3

RB-DMX4 4 x 4 Channel Digital Audio Mixer/Router

The **RB-DMX4** is a digital mixer capable of mixing or routing 4 mono input channels into 4 mono outputs, or 2 stereo inputs into 2 stereo outputs. The inputs are sample rate converted to allow sources of different sample rates to be mixed. The flexible Mix Matrix allows for a wide variety of mixing options and creativity, using 4 blocks of 4 way DIP switches to select which inputs are mixed or routed to which outputs.

- 4 x digital mono audio inputs & outputs available as simultaneous AES/EBU balanced XLRs, S/PDIF unbalanced phonos or TOSlink unbalanced optical outputs.
- Input & output gain control & presence indications.
- Headphone amp and serial control.

24 bit 192 kHz RK3

RB-SSML1 Mic/Line Source Selector with Compressor/Limiter

The **RB-SSML1** is a 1U rack-mountable source selector for compressing or limiting an incoming microphone or stereo line signal and mixing this signal with a stereo monitor input, which can then be metered and mixed to two headphone outputs. The unit is mainly used in situations where level control is required, for example in voiceover applications.

- Ideal programme contribution unit useful for news booths, voice-over booths and remote studios.
- Stereo return inputs and headphone outputs for monitoring and cue.
- Switchable mic/line input, phantom power, high pass filter and level metering.

RK3

RB-OA3 3 Studio On-Air Switcher

The **RB-OA3** is a 1U rack-mount, unity gain on-air switcher, capable of switching three stereo pairs between three studios. Each studio can control the transmission path together with two peripheral paths for equipment such as a codec or hybrid and there is also a "Last studio to offer" bus, allowing for seamless and continuous broadcast from any multi-studio radio network. A "sustain" mode allows for a sustaining system, such as a PC automation system, to control the broadcast. Multiple RB-OA3 units can be connected together to switch more studios or more stereo pairs.

- Controls the offer/accept switching for 3 studios.
- Switches 3 stereo bidirectional channels, e.g. studio output, codec clean-feeds, telco feeds.
- Has a stereo transformer mix input, e.g. for playout system.

RK3

RB-OA3R Remote Switcher Panel for RB-OA3

The RB-OA3 has been designed for installation in a central technical area with cabling to custom panels, or selection switches, in each studio. If you don't have any custom switch panels available, you can use an RB-OA3R in each studio.
The **RB-OA3R** is a 1U rack mount switch unit for use in each studio that needs to be connected to the STUDIO 1-3 CONTROL connectors on an RB-OA3. It takes it's power from the RB-OA3 unit so needs no power supply itself.

Features:

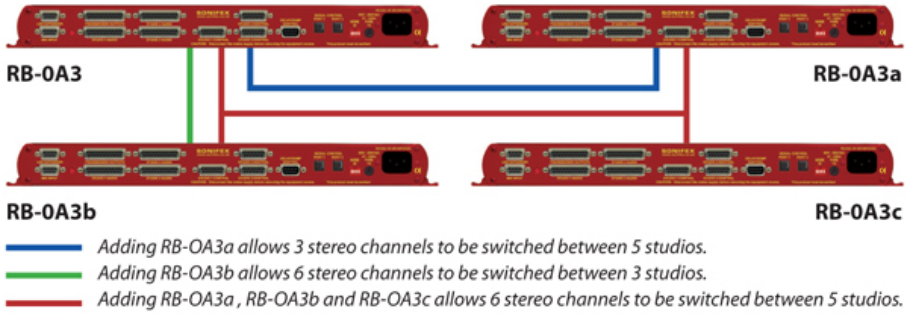
- 4 buttons which are used to control the functions.
- Each front panel push button is illuminated by coloured LEDs and controls the OFFER, ACCEPT, DELAY and DUMP functions.

RB-OA3C Expansion Unit Cable For RB-OA3

If you add another RB-OA3 to an existing unit to expand either the number of busses or studios, you need additional cables to connect it which are contained in this kit:

Features:

- 1 x Transmission output expansion cable, 25 pin D-type male to 25 pin D-type male, 30cm lead, wired pin to pin.
- 1 x LSO expansion cable, 9 pin D-type male to 9 pin D-type male, 30cm lead, wired pin to pin.
- 1 x RS232 expansion cable, RJ45 to RJ45 standard wiring, 30cm lead.
- 1 x kit should be used for each expansion RB-OA3 being used.


RB-0A3
RB-0A3a
RB-0A3b
RB-0A3c
Adding RB-OA3a allows 3 stereo channels to be switched between 5 studios.
Adding RB-OA3b allows 6 stereo channels to be switched between 3 studios.
Adding RB-OA3a , RB-OA3b and RB-OA3c allows 6 stereo channels to be switched between 5 studios.

RB-MA1 Single Microphone Amplifier

The **RB-MA1** consists of a low noise microphone pre-amplifier for converting mic level signals to line level, or for driving long lines from microphones to mixing equipment. The connections and controls are on the rear panel. The microphone input is an XLR-3 type and is electronically balanced. The gain for the input can be adjusted by a recessed pre-set potentiometer which allows for the use of both dynamic and powered microphones.

Features:

- Microphone input is an XLR-3 type and is electronically balanced.
- Can be wired unbalanced by grounding the non-phase signal, allowing you to feed both balanced and unbalanced equipment.

RK1
RK2

RB-MA2 Dual Microphone Amplifier

The **RB-MA2** consists of two independent low-noise microphone pre-amplifiers for converting mic level signals to line level, or for driving long lines from microphones to processing equipment. All connections and controls are on the rear panel. The microphone inputs are XLR-3 type and are electronically balanced. The input gain for each input can be adjusted individually by a recessed pre-set potentiometer which allows for the use of both dynamic and powered microphones.

- The XLR-3 line outputs are electronically balanced and can be wired unbalanced.
- For each channel there are independent switches to control a high pass filter (low frequency roll-off at 125Hz) and to provide phantom power at +48V to the connected microphones.

RK1
RK2

RB-DMA2 Dual Digital Microphone Amplifier

The **RB-DMA2** consists of two independent low-noise microphone pre-amplifiers for converting microphone level signals to a digital AES/EBU or S/PDIF output. Individual analogue balanced line level outputs are also produced for use, for example, to feed talkback systems. The unit can either be used as two independent microphone amplifiers, or one mic input can be copied to both channels of the digital output.

- The microphone inputs are XLR-3 type and are electronically balanced.
- The input gain for each input can be adjusted individually by a volume control on the front panel enabling the use of dynamic and powered microphones and each has a LED level indicator.

24 96 RK3

RB-ML2 Stereo Microphone and Line Level Limiter

The **RB-ML2** is a stereo microphone and line level limiter. The unit is mainly used where assistance with level control is required, for protection of mixer inputs and to prevent distortion. Ideal for news-booths, and the input to PC workstations, it provides an economical level control solution.

- The RB-ML2 has two electronically balanced XLR-3 inputs.
- The mic amps have independent pre-set gain controls & DIP switches for a high pass filter (LF roll-off at 125Hz) & +48V phantom power.
- Mic & line level inputs & outputs enabling insertion before a mic channel.

MIC/LINE INPUT 1
MIC/LINE INPUT 2
MIC/LINE OUTPUT 1
MIC/LINE OUTPUT 2
RB-ML2: STEREO MICROPHONE & LINE LEVEL LIMITER
CAUTION: Disconnect the mains supply before removing the equipment covers.
This product must be earthed
FUSE
115V - 230V

RK1
RK2

RB-SL2 Twin Mono or Stereo, Limiter

The **RB-SL2** is a stereo, or twin independent mono, VCA limiter for use in news-rooms and other locations where the correct level into recording equipment is required, but not necessarily under the control of an engineer, for example, for overload protection. It can also be used as an inexpensive main output limiter for small scale radio stations, hospital radio and student radio.

- The XLR-3 electronically balanced inputs and outputs can be wired unbalanced to accept an output from domestic equipment.
- For each channel there is an input gain and a threshold level control.
- Dual mono limiting operates by limiting left and right signals individually, so you can use the RB-SL2 as two separate mono limiters.

RK1
RK2

RB-SM1 Single Stereo to Mono Converter

The **RB-SM1** converts a stereo input to a fully buffered and balanced mono line output, e.g. to supply cue in broadcast environments or to feed a mono PA system.

- The connections, which are on the rear panel, are of an XLR-3 type. The input is electronically balanced with an impedance of 20kΩ bridging. This can be wired unbalanced to accept an output from domestic equipment.
- Output gain adjustment using a pre-set potentiometer for the converter allows a normalised mono output from domestic stereo equipment.

RK1
RK2

RB-SM2 Dual Stereo to Mono Converter

The **RB-SM2** is a dual version of the RB-SM1, consisting of two independent converters which will produce two fully buffered and balanced mono line outputs from two stereo inputs. All connections are on the rear panel. The XLR-3 inputs are electronically balanced with an impedance of 20kΩ bridging. These can be wired unbalanced to accept an output from domestic equipment.

- The XLR-3 line outputs are electronically balanced with an output impedance of <50Ω.
- Output gain adjustment using pre-set potentiometers for both converters allows a normalised mono output from domestic stereo equipment.

RK1
RK2

RB-LC3 3 Way Light/Power Controller

The **RB-LC3** is a triple output switching unit for controlling external mains indicators, primarily studio status lights for broadcasting applications, such as On-Air, Mic-Live and Rehearsal/Live lights. Each output can be individually controlled by one of three remote inputs (pulled high, or low), by a telephony input (when ringing, or off-hook, or both), or a combination of two inputs (to control two outputs, e.g. for Rehearsal/Live situations). The type of control is set using the 12 way DIP switch (4 switches for each output, allowing 16 different settings).

- Control each output by: a remote input (high or low), a telephony input (ringing, or off-hook), or combination of two inputs (e.g. rehearsal/live).
- Light flash rate control.
- IEC light outputs with neon indicators.

RK1
RK2

RB-MM1 Mix-Minus Generator

The **RB-MM1** is a unit for generating a suitable mix to send to a telephone hybrid or codec. A stereo output is taken from a mixer, together with a post fader output from the mono telephone fader on the mixer. The caller audio is removed from the station output so that it can be sent to the telephone line via the hybrid.

- Analogue audio inputs and outputs are via Neutrik XLR connectors.
- The output level to the TBU can be adjusted using a rear panel pre-set potentiometer.
- To use the RB-MM1 unit with full-band ISDN codecs, the band pass filter can be switched out. For stereo codecs, or conference calls, multiple RB-MM1 units can be used.

RB-MTV1 Contribution Voiceover Monitor with Talkback

The **RB-MTV1** contribution voiceover monitor is a 1U rack-mount designed to be used in voice-over booths, news booths, commentary locations, for continuity announcements and for any other similar applications where voice needs to be added to programme content and then monitored. Programme feeds, auxiliary feeds and a talkback feed can be taken and monitored.

- Comprehensive headphone monitoring of any connected signal.
- Two stereo inputs plus talkback I/O.
- Mic input with phantom power, limiter, LF filter and wide gain control.

RK3

RB-TGHDB Multi-Channel High Definition Tone Generator

The **RB-TGHDB** (BNC outputs) is an 8 channel audio tone generator that provides line identification for multi-channel audio systems, including 5.1 and 7.1 surround sound typically used in high definition television broadcasts. By using a range of widely accepted industry standard tone sequences such as the EBU R49, GLITS and BLITS tones, channel identification and associated levels can be determined easily. Correct channel configuration in fold-down mixes can also be highlighted when a broadcaster needs to mix several audio channels into a stereo feed.

- Available tone sequences include EBU R49, GLITS and BLITS stereo line-up, EBU R49 and BLITS channel identification & a standard phase check on analogue & digital outputs.
- User-definable test sequences.
- GPIO and RS232 serial control.

24 BIT 192 kHz RK3

RB-TGHDX Multi-Channel High Definition Tone Generator

The **RB-TGHD** (XLR outputs) is an 8 channel audio tone generator that provides line identification for multi-channel audio systems, including 5.1 and 7.1 surround sound typically used in high definition television broadcasts. By using a range of widely accepted industry standard tone sequences such as the EBU R49, GLITS and BLITS tones, channel identification and associated levels can be determined easily. Correct channel configuration in fold-down mixes can also be highlighted when a broadcaster needs to mix several audio channels into a stereo feed.

- Available tone sequences include EBU R49, GLITS and BLITS stereo line-up, EBU R49 and BLITS channel identification & a standard phase check on analogue & digital outputs.
- User-definable test sequences.
- GPIO and RS232 serial control.

RB-VHDA8 3G HD SD-SDI 1 Input, 8 Output Video Distribution Amplifier

The **RB-VHDA8** is a high performance, reliable eight way digital video distribution amplifier for re-clocking and distributing a 3G, HD (high definition) or SD (standard definition) SDI source to eight outputs. The unit provides automatic input detection, re-clocking and cable equalisation of the input signal to 100/350 meters (HD/SD) of coax cable.

- The full range of 3G, SD and HD standards are supported by the unit allowing PAL and NTSC signals up to 1080p 60Hz to be distributed.
- Each output is individually buffered providing separately driven outputs for greater reliability.

RB-VHDMA8 3G/HD/SD-SDI De-Embedder, 8 Channel Analogue Outputs

The **RB-VHDMA8** is an 8-channel analogue de-embedder. The unit can selectively de-embed up to 8 channels within any 2 audio groups contained within the video stream, to any of the analogue outputs. After which, the video becomes two independent streams, where the audio groups can be selectively deleted or passed through and then re-clocked and sent to the SDI outputs.

- Eight balanced and unbalanced audio outputs.
- Two independently buffered SDI outputs.
- Supports the full range of 3G, HD & SD standards up to 1080p 60Hz.
- Front panel, serial and ethernet control.

RK3

RB-VHEMA8 3G/HD/SD-SDI Embedder, 8 Channel Analogue Inputs

The **RB-VHEMA8** is an 8-channel analogue embedder. The unit can selectively embed up to 8 analogue channels onto either of the two output video streams which are re-clocked and sent to the SDI outputs. It also has the capability to allow audio groups to be deleted or passed through untouched on each of the two video streams.

- It has a triple rate SDI receiver with automatic input rate detection and equalisation along with two re-clocked and individually buffered SDI outputs.
- It supports the full range of 3G, SD and HD standards from NTSC and PAL up to 1080p 60Hz.

RK3

RB-VHCMA4 3G/HD/SD-SDI Embedder & De-Embedder 4 Channel Analogue I/O

The **RB-VHCMA4** is a 4-channel analogue de-embedder and a 4-channel analogue embedder combined into a single 19-inch rack unit. The unit selectively de-embeds up to 4 channels within any audio group contained within the video stream to any of the analogue outputs. After which, the video becomes two independent streams, where the audio groups can be selectively deleted or passed through. The unit then embeds any of the 4 analogue input channels to available groups within each of the two video streams, which are then re-clocked and sent to the SDI outputs.

- Triple rate SDI receiver with automatic input rate detection and equalisation plus two re-clocked and individually buffered SDI outputs.
- It supports the full range of 3G, SD and HD standards from NTSC and PAL up to 1080p 60Hz.

RK3

RB-VHCMD16 3G/HD/SD-SDI Embedder & De-Embedder 16 Channel Digital I/O

The **RB-VHCMD16** is a 16-channel de-embedder and 16 channel embedder combined into a single 19-inch rack unit. The unit selectively de-embeds any channel within any audio group contained within the video stream to any of the digital outputs. After which, the video becomes two independent streams, where the audio groups can be selectively deleted or passed through. The unit then embeds any of the digital input channels to available groups within each of the two video streams, which are then re-clocked and sent to the SDI outputs.

- The digital inputs and outputs can be selected as AES or S/PDIF via jumpers situated inside the unit.
- The balanced AES/EBU and unbalanced S/PDIF I/O connections are paralleled, allowing one type to be used per input or output.

Redbox Accessories

Rack Mounting :

There are **3** rackmount options: RB-RK1, RB-RK2 & RB-RK3. For rack mounting smaller (28cm) (11”) units the optional RB-RK1 (Red) or RB-RK1B (Black) kit can be used (which include 4 off M6 panel fixing screws).

Front Panel Kits for Redboxes:

A number of customers have asked for non-rackable fronts for the RB-HD1, RB-HD2, RB-ADDA, RB-UL4 and RB-LU4. These are available without rack-ears as: RB-FR1, RB-FR2 and RB-FR3.

RK1

RK2

RK3

FR1

FR2

FR3

Redbox Accessories

Synchronisation Add-On Boards:

There are **4** Synchronisation Add-On Boards for the Redbox range of products:

RB-SYA Analogue Video Sync Add-On Board for RB-SC2

RB-SYD Digital Video Sync Add-On Board for RB-SC2

RB-SYE Sync Board

RB-SYW Sync Board